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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SNIDER, THERESA T

ART UNIT PAPER NUMBER

1744

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,881

Applicant(s)

GINDEL, SHARONE

Examiner

Theresa T. Snider

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 21-23 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/24/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 314 (figure 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Exemplary of such:

Page 1, line 9, the status of the copending application should be updated.

Page 2, line 31 and page 3, lines 12, 15 and 16, it is unclear as to what is meant by '90_ ' bends.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 18-20 and 24-26 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by The Admitted State of the Prior Art, as set forth on pages 2-3, figures 1-2 of specification (hereafter ASPA).

ASPA discloses a stage to hold a wafer (fig. 1, #102).

ASPA discloses an exposure slit (fig. 1, #104).

ASPA discloses projection optics to focus a beam through the slit (page 2, lines 24-26).

ASPA discloses at least one vacuum tube adjacent the slit (fig. 1, #106).

ASPA discloses a single opening formed in the vacuum tube (fig. 1, #105, it is noted that the use of ‘comprising’ does not exclude the presence of additional openings; perhaps amend to ‘no more than one’ or the like to exclude presence of additional openings).

With respect to claim 19, ASPA discloses the opening located at about the mid-point of the slit (fig. 1, #115).

With respect to claim 20, ASPA discloses the opening having a predetermined size and shape (fig. 1, #115).

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With respect to claims 24-26, the ASPA would inherently provide for the claimed method.

5. Claims 24-26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Johnson.

Johnson discloses providing at least one vacuum tube (fig. 1, #28).

Johnson discloses forming a single opening in the tube (fig. 1, #28, opening at uppermost surface).

With respect to claim 25, Johnson discloses the opening have a predetermined size and shape (fig. 1, #28).

With respect to claim 26, Johnson discloses the opening to be about the mid-point of an exposure slit (fig. 1, #28, 14, and fig. 2, #14, slit where #22 passes).

6. Claims 24-25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kawasaki.

Kawasaki discloses providing at least one vacuum tube (fig. 1, #5).

Kawasaki discloses forming a single opening in the tube (fig. 1, #5).

With respect to claim 25, Kawasaki discloses the opening have a predetermined size and shape (fig. 1, #5).

Allowable Subject Matter

7. Claims 21-23 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art discloses an apparatus for manufacturing a semiconductor device having a stage, an exposure slit, projection optics, at least one vacuum tube adjacent the slit, formed with a single opening HOWEVER fails to disclose or fairly suggest a second vacuum tube adjacent the exposure slit on an opposite side of the slit than the first vacuum tube.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mikutowski discloses a vacuum tube having a single opening. Eveland and Lawson disclose the use of a vacuum tube in conjunction with a laser beam.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Thursday (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Theresa T. Snider

Theresa T. Snider
Primary Examiner
Art Unit 1744

11/3/2004